

three positions as follows.¹ Because Conneelly's cDNA sequence differs from that claimed there is no anticipation.

| aa# | Fig. 1 (present application) | Fig. 2 Conneelly |
|-----|------------------------------|----------------------|
| 130 | Threonine | Isoleucine |
| 151 | Glutamine | Alanine and Arginine |
| 403 | Cysteine | Glycine |

Further, Conneelly provides no suggestion that the bases in her cDNA sequence encoding amino acids 130, 151 or 403 should be changed to encode the amino acids shown in the second column of the above table. The fact that Conneelly's sequence and the present sequence might have a similar function in encoding human lactoferrin is not itself sufficient for obviousness. The law is succinctly stated in *In re Cofer*:

To be sure, whether a given chemical compound or composition has the same usefulness as closely related materials may be an important consideration in determining obviousness under 35 USC §103. But it is only one consideration. We think the board failed to address itself to other factors which must be given weight in determining whether the subject matter as a whole would have been obvious, namely, whether the prior art suggests the particular structure or form of the compound or composition as well as suitable methods of obtaining that structure or form. *The new form of the compound set forth in the claims is as much a part of the "subject matter as a whole" to be compared with the prior art as are other properties of the material which make it useful.*

148 USPQ 268, 271 (CCPA 1966) (emphasis supplied).

¹Note that amino acid position numbers are those of Fig. 1 in the present application, in which the first amino acid of the mature protein is designated amino acid 1. The sequence in Fig. 2 of the '642 PCT application is numbered by a different convention in which the first amino acid of the signal peptide is designated 1.

H. Deboer et al.
Application No.: 08/476,798
Page 3

PATENT

Here, the bases encoding codons 130, 151 and 403 are as much a part of the claimed cDNA sequence, as is the function of this sequence in encoding a human lactoferrin. In the absence of any suggestion in the cited art to select bases encoding codons 130, 151 and 403 for substitution, or of the nature of substitutions needed to arrive at the claimed sequence, the Examiner is asked to reconsider the patentability of the claimed sequence with respect to the cited reference.

Respectfully submitted,



Joe Liebeschuetz
Reg. No. 37,505

TOWNSEND and TOWNSEND and CREW
Two Embarcadero Center, 8th Floor
San Francisco, California 94105
(415) 326-2400
Fax (415) 326-2422

JOL:jlo

JOL\WORK\16994\031-2-5\amend1